

**REMARKS**

Prior to this Amendment, Claims 1-5 and 9-22 are pending in the application, with Claims 6-8 having been cancelled (without prejudice to their resubmission) and Claims 13-19 having been withdrawn from consideration. In the December 23, 2003 Office Action, the Examiner rejected Claims 1-5, 9-12 and 20-22. By this Amendment, the applicant has cancelled Claims 13-19 (without prejudice to their resubmission); amended Claims 1-3, 9, 11-12, and 20-22; and added Claims 23-36.

Applicant thanks the Examiner for the courtesy of an interview, conducted on March 10, 2004. Applicant has carefully considered the Examiner's suggestions, and has made very effort to reflect them in the amendments to the claims.

In the December 23, 2003 Office Action, the Examiner objected to claim 11 because of lack of subject-verb agreement. That has been corrected by the current amendment to claim 11. The Examiner also objected to claim 12 as a multiple dependent claim depending from a multiple dependent claim. Claim 12 has been amended so that it does not depend from any multiple dependent claims, and claim 23, with corresponding scope and depending only from claim 4, has been added.

In the December 23, 2003 Office Action, the Examiner rejected claim 20 under 35 U.S.C. § 112 ¶ 1, as containing subject matter which was not described in the specification in such a way as to reasonably convey to a one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. While applicant disagrees with this rejection, in the interest of expediting prosecution, claim 20 is amended to specify that the heating element comprises polyether ether ketone or polytetrafluoroethylene. Support for this amendment is found for example in the third full paragraph of page 11 of the application.

Also in the December 23, 2003 Office Action, the Examiner rejected claims 1-5, 10-12 and 22 under 35 U.S.C. § 102 as anticipated by U.S. Patent No. 6,093,370 to Yasuda et al. Applicant respectfully disagrees with this rejection. As amended, claim 1 clarifies at least two features of the invention: an electrode that itself comprises a probe-immobilizing support, and with a heat insulating member that covering a circumferential surface of the electrode.

Applicant respectfully submits that neither Yasuda nor any other cited art discloses or suggests this combination of features. In Yasuda, for example, the probe-immobilizing support (e.g., probe hybridization layer 221 of Yasuda FIG. 11) is separated from electrodes 226.

Accordingly, applicant submits that amended claim 1 is allowable over the art of record.

The Examiner has also rejected claims 9, 20 and 21 under 35 U.S.C. § 103 as unpatentable over Yasuda, et al., in view of U.S. Patent No. 6,093,370 to Malmros, et al. Claims 9, 20 and 21 each depends from amended claim 1 which, as discussed above, does not disclose or suggest features of the system of claim 1 of this application. Applicant also respectfully submits that Malmros et al., also does not teach or suggest those features. Accordingly, applicant believes that the rejection under 35 U.S.C. § 103 has been overcome.

Claims 2-5, 9-12 and 20-23 depend directly or indirectly from claim 1. Claim 2 has been amended to specify more clearly the location of contact between the soaking component and the electrode substrate. Claim 3 has been amended to clarify that the thermal capacity of the soaking component is greater than the thermal capacity of the electrode substrate. Claims 4 and 5 have not been amended in this Amendment. Claim 9 has been amended to clarify the composition of a surface of the electrode. Claim 10 has not been amended in this Amendment. In response to the Examiner's objections, claims 11 and 12 have been amended as discussed above. Claim 20 has been amended to address the Examiner's rejection under 35 U.S.C. § 112, as discussed above. Claims 21 and 22 have been amended to address matters as to

form. Applicant submits that claims 2-5, 9-12 and 20-23, each dependent directly or indirectly from claim 1, are also in condition for allowance.

In this Amendment, applicant has also added claims 23-36. Claim 23 is new, and depends from claim 1, which is allowable over the art of record, as discussed above. Claim 24 is directed to a gene detection system that includes at least the features identified above that make the claim allowable over the art of record. Claims 25-36 depend directly or indirectly from claim 24, and therefore are also allowable.

In view of the above, each of the presently pending claims in this application is in condition for immediate allowance. Accordingly, applicant respectfully requests the Examiner to pass this application to issue.

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Respectfully submitted,

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